Torque Specifications

Description	Nm	lb-ft
Dual converter-to-exhaust manifold nuts	40	30
Sleeve U-bolt nuts	55	41
Dual converter-to-inlet pipe flange nuts	35	26

Exhaust System

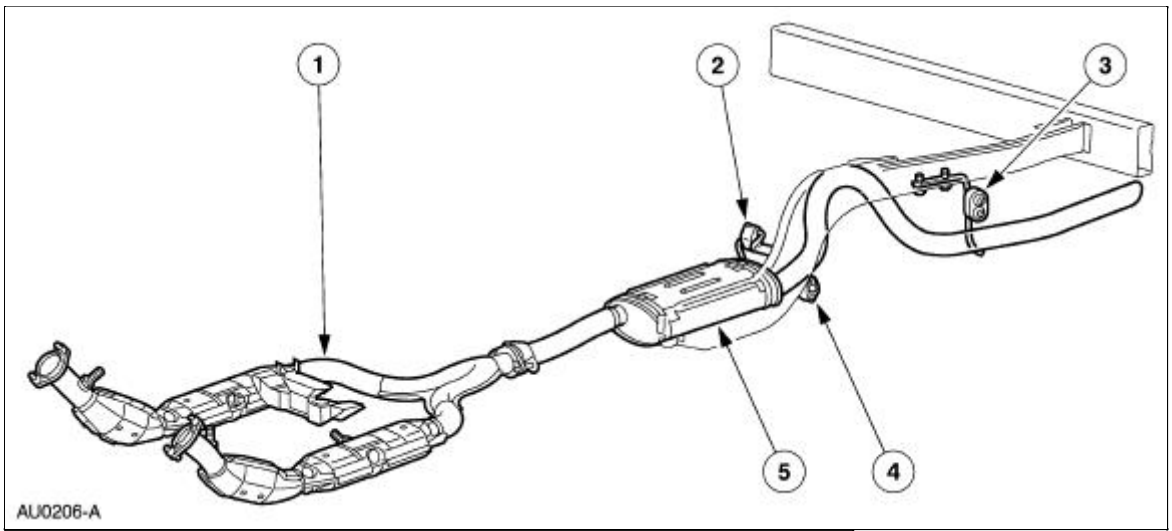
WARNING: The normal operating temperature of the exhaust system is very high. Never attempt to repair any part of the system until it has cooled. Be especially careful when working around the three way catalytic converter. The temperature of the three way catalytic converter rises to a high level after only a few minutes of engine operation.

CAUTION: When repairing exhaust system or removing exhaust components, disconnect all heated oxygen sensors (HO2S) at the wiring connectors to prevent damage to the heated oxygen sensors and wiring harness. For additional information, refer to Section 303-14 for location of the heated oxygen sensors.

The exhaust system:

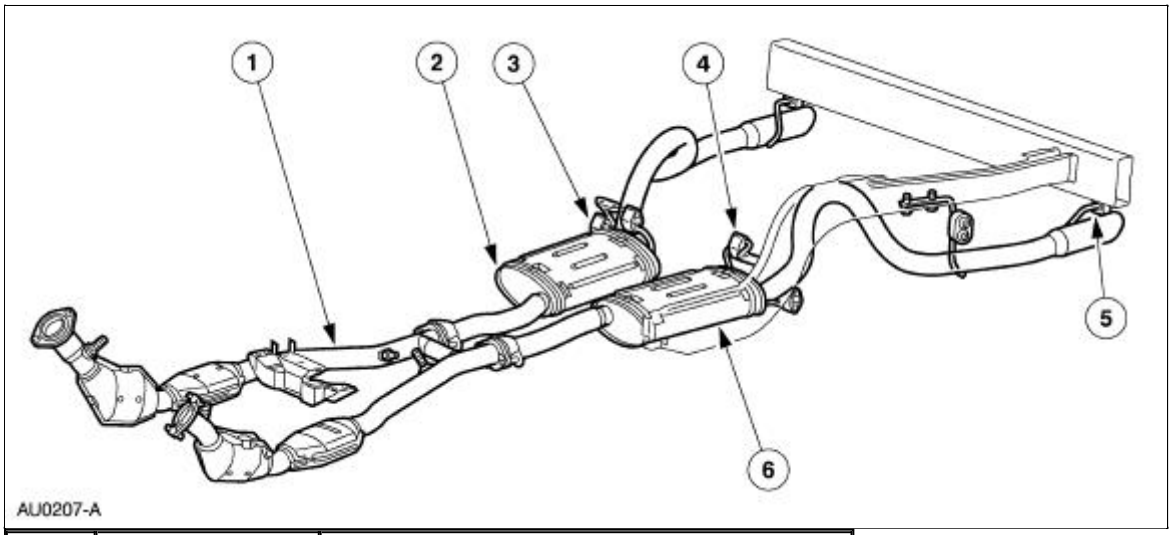
- contains dual three-way catalytic converters.
- has a crossover pipe downstream of the three way catalytic converters (4.6L).
- has two upstream heated oxygen sensors mounted before the three-way catalytic converters.
- the production muffler and tailpipe assembly is a one-piece design exhaust system.

Exhaust System — 3.8L



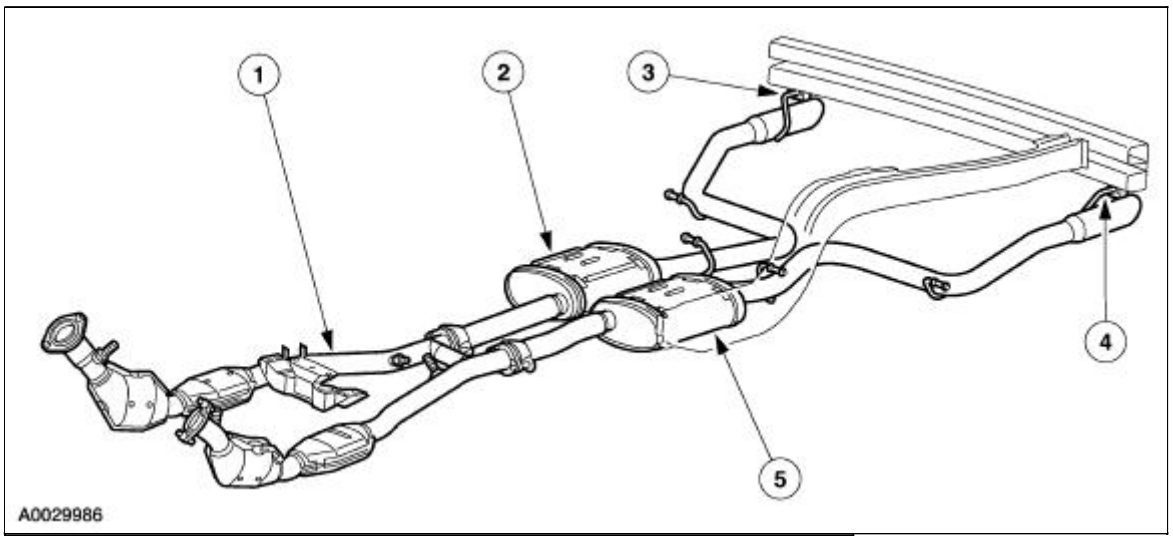
Item	Part Number	Description
1	5F250	Dual converter assembly
2	5D255	Insulator bracket assembly
3	5A246	Insulator bracket, (tailpipe)
4	5D255	Insulator bracket assembly
5	5232	Muffler

Exhaust System — 4.6L (2V)



Item	Part Number	Description
1	5F250	Dual converter assembly
2	5230	Muffler, RH
3	5260	Insulator bracket assembly, RH
4	5260	Insulator bracket assembly, LH
5	5A246	Insulator bracket, tailpipe (2 req'd)
6	5230	Muffler, LH

Exhaust System — 4.6L (4V)



Item	Part Number	Description
1	5F250	Dual converter assembly
2	5230	Muffler, RH
3	5260	Insulator bracket assembly, RH
4	5260	Insulator bracket assembly, LH
5	5230	Muffler, LH

Exhaust System

Symptom Chart

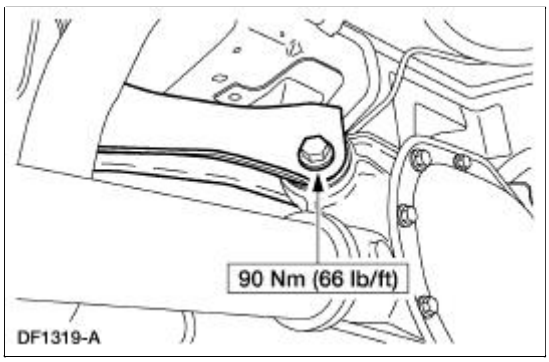
Symptom Chart

Condition	Possible Sources	Action
● Noisy or leaking exhaust	● Broken or loose clamps, hangers or isolators. ● Punctures in the muffler (5230). ● Broken, loose or missing exhaust manifold fasteners or gaskets. ● Loose heated oxygen or catalyst monitor sensor.	● REPAIR as necessary.
	● Exhaust system misalignment.	● ALIGN exhaust system.
	● Broken or loose catalyst internal components.	● LOOSEN all fasteners joining the exhaust system and SHAKE the system to isolate the concern. REPAIR as necessary.
● Loss of power	● Kinked or damaged exhaust pipe. ● Clogged three-way catalytic converter (5F250). ● Foreign object in the exhaust system.	● REPAIR as necessary.

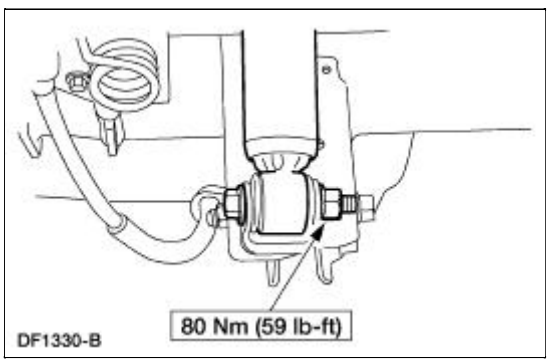
Muffler —3.8L

Removal and Installation

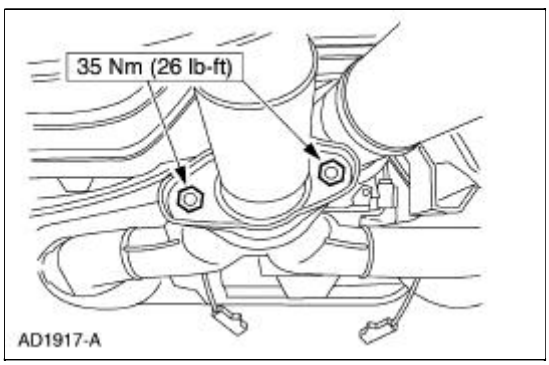
1. Raise and support the vehicle. For additional information, refer to Section 100-02 .
2. Support the rear axle with a suitable jack.
3. Remove the upper arm-to-differential bolt.



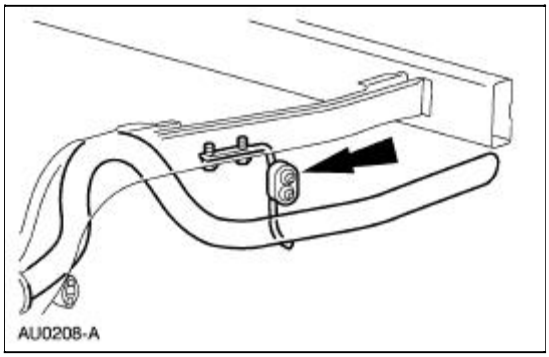
4. Remove the nut and bolt and disconnect the rear shock absorbers (18124) from the axle housing.
   - Discard the nut.



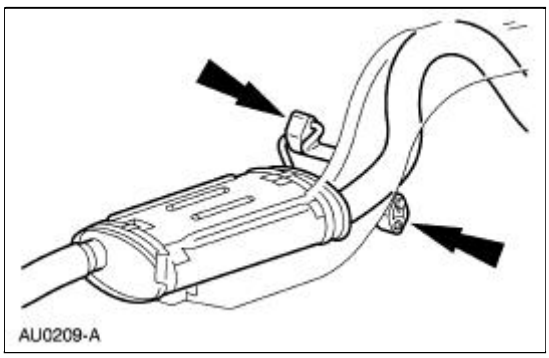
5. Lower the rear axle.
6. Remove the dual converter assembly flange nuts.



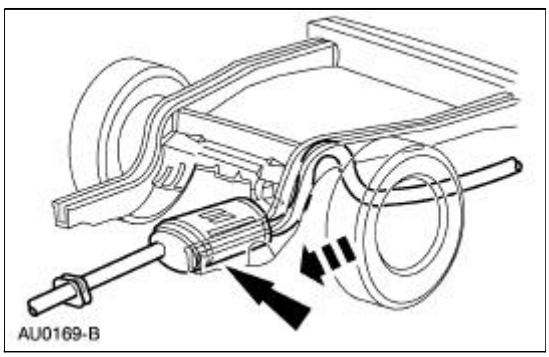
7. Remove the exhaust pipe assembly (5232) from the rear exhaust hanger insulator (5260).



8. Remove the exhaust hanger insulators.



9. Remove the muffler (5230).



10. **CAUTION: Do not use oil or grease-based lubricants on insulators as they deteriorate the rubber.**

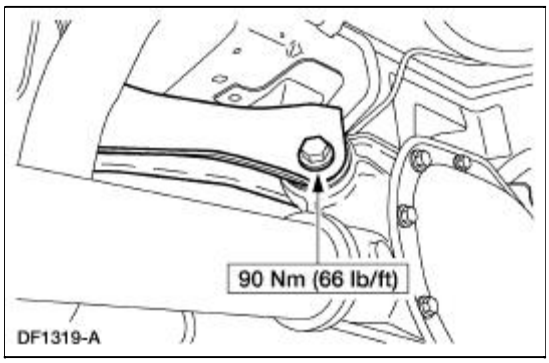
    NOTE: A soap-and-water solution will ease installation of the exhaust hanger insulators.

    To install, reverse the removal procedure.

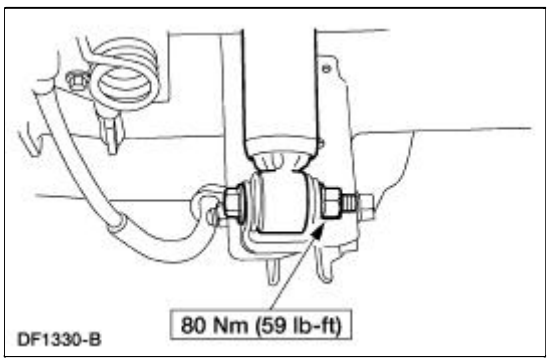
Muffler —4.6L (2V)

Removal and Installation

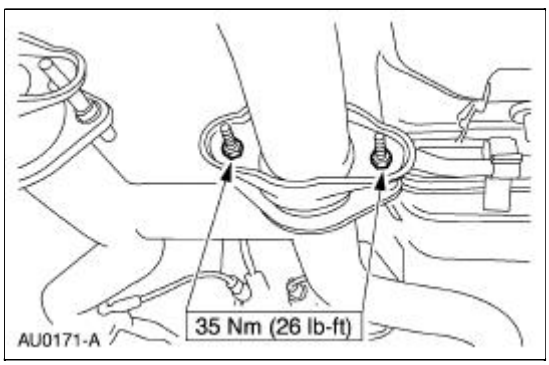
1. Use a jack to support and lower the rear axle.
2. Remove the upper arm-to-differential bolt.



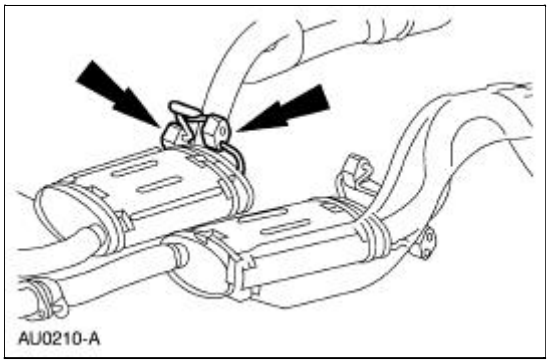
3. Remove the nut and bolt, and disconnect the rear shock absorbers (18124) from the axle housing.
   - Discard the nut.



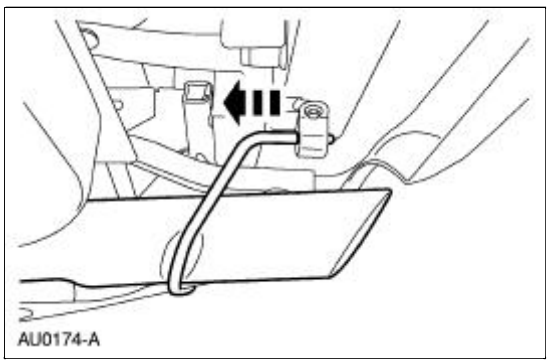
4. Lower the rear axle.
5. Remove the dual converter assembly nuts. (RH shown, LH similar.)



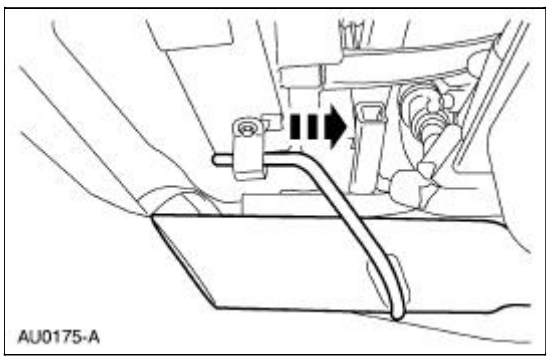
6. Remove the RH intermediate exhaust hanger insulator.



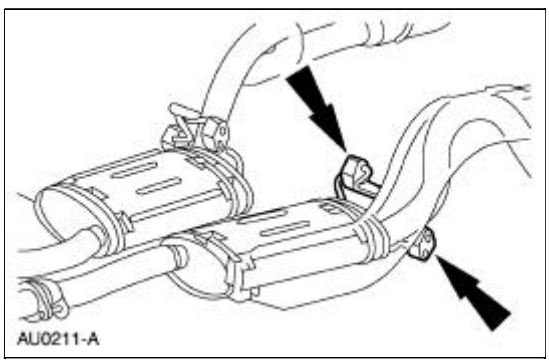
7. Remove the RH muffler (5230) from the rear exhaust hanger insulator (5260).



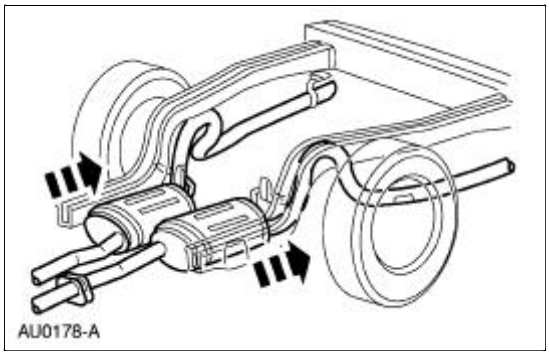
8. Remove the LH muffler (5230) from the rear exhaust hanger insulator (5260).



9. Remove the LH intermediate exhaust hanger insulator.



10. Remove the LH and RH mufflers.



11. **CAUTION: Do not use oil or grease-based lubricants on the insulators as they deteriorate the rubber.**

    NOTE: A soap-and-water solution will ease installation of the exhaust hanger insulators.

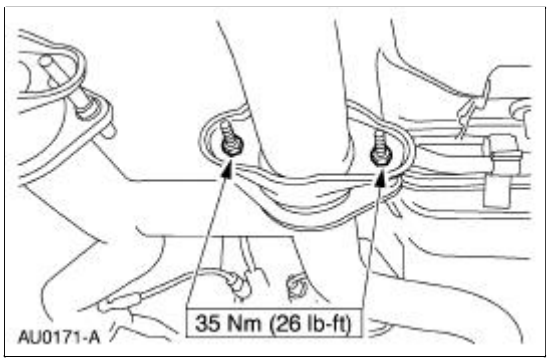
    To install, reverse the removal procedure.

Muffler —4.6L (4V)

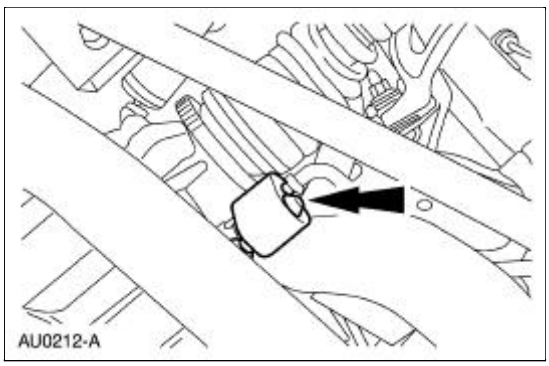
Removal and Installation

1. Raise and support the vehicle. For additional information, refer to Section 100-02 .
2. **NOTE:** RH side shown, LH side similar.

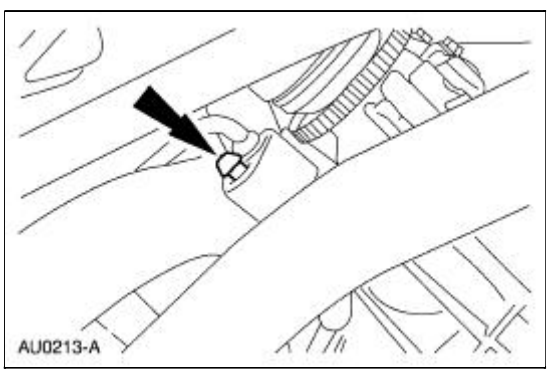
   Remove the dual converter assembly nuts.



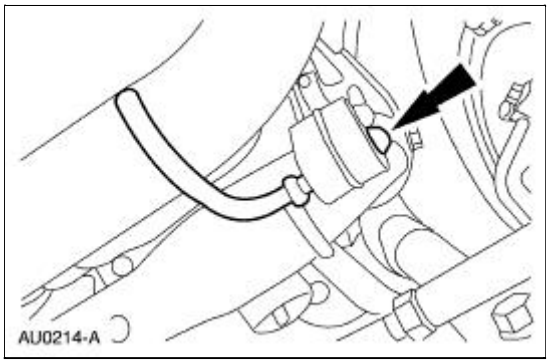
3. Remove the RH exhaust hanger insulator (5260).



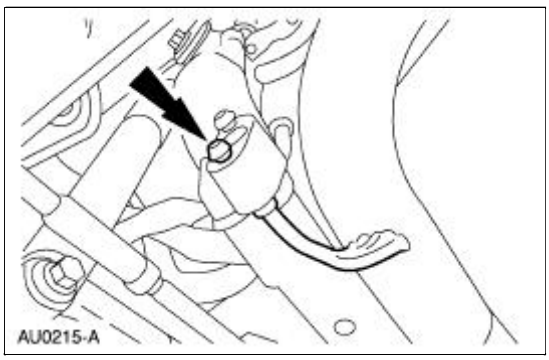
4. Remove the LH exhaust hanger insulator (5260).



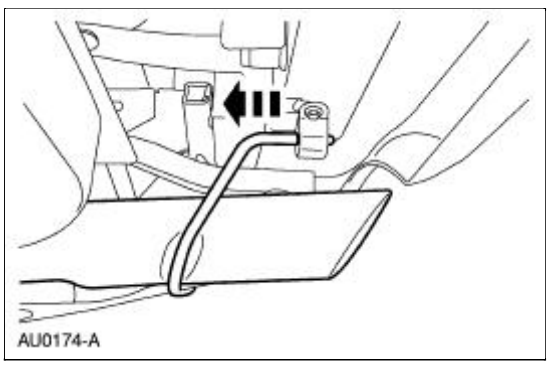
5. Remove the RH intermediate exhaust pipe hanger insulator.



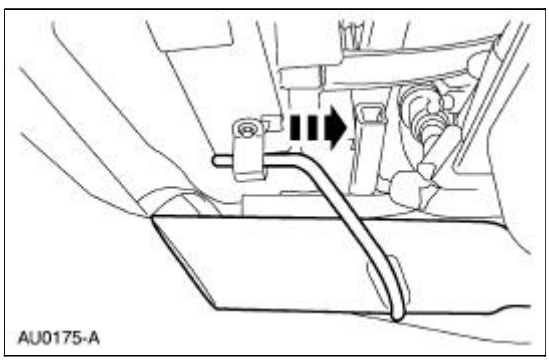
6. Remove the LH exhaust pipe hanger insulator.



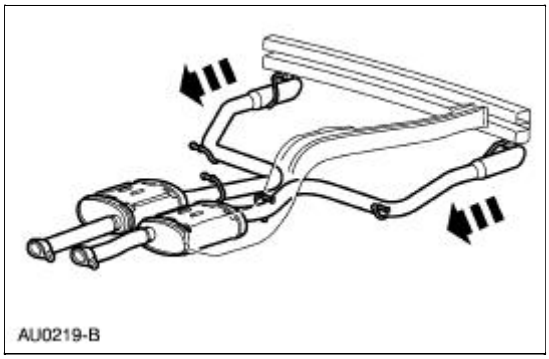
7. Remove the RH exhaust pipe hanger insulator.



8. Remove the LH exhaust pipe hanger insulator.



9. Remove the RH and LH mufflers.



10. **CAUTION: Do not use oil or grease-based lubricants on the insulators as they deteriorate the rubber.**

    NOTE: A soap-and-water solution will ease installation of the exhaust hanger insulators.

    To install, reverse the removal procedure.

Dual Converter Y-Pipe —3.8L

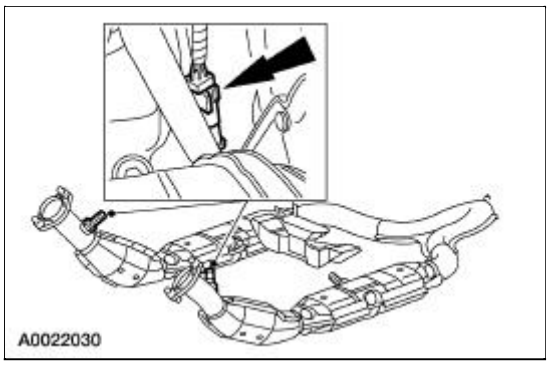
Removal

NOTE: The RH and LH catalytic converters are serviceable separately.

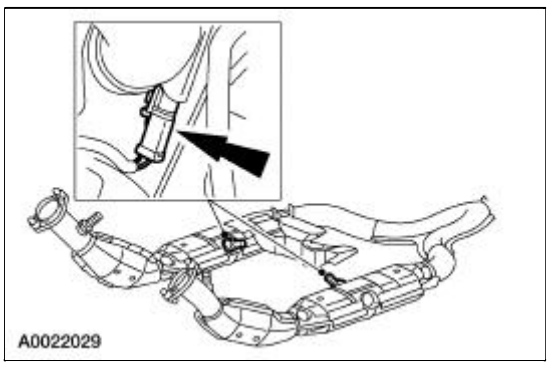
1. Raise and support the vehicle. For additional information, refer to Section 100-02 .

2. **CAUTION: When repairing the exhaust system or removing exhaust components, disconnect all heated oxygen sensors (HO2S) (9F472) and catalyst monitor sensors at the wiring connectors to prevent damage to the sensors and wiring harnesses.**

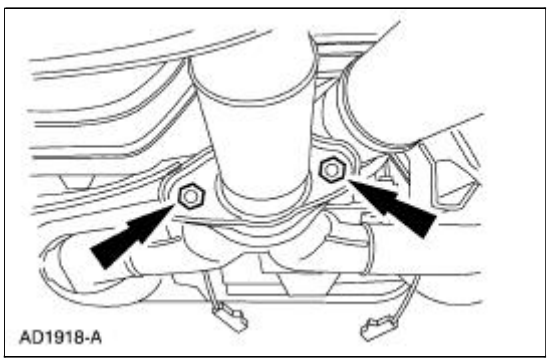
   Disconnect the RH and LH HO2S connectors.



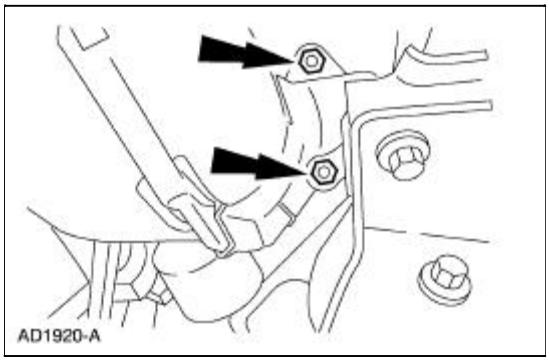
3. Disconnect the RH and LH catalyst monitor sensor connectors.



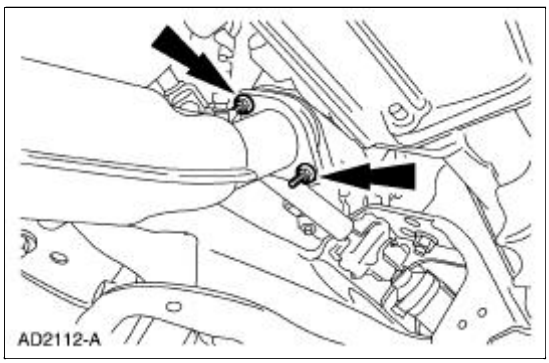
4. Remove the dual converter assembly nuts.



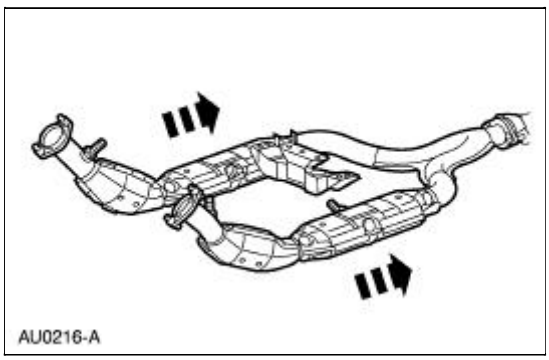
5. Remove the RH exhaust manifold flange nuts.



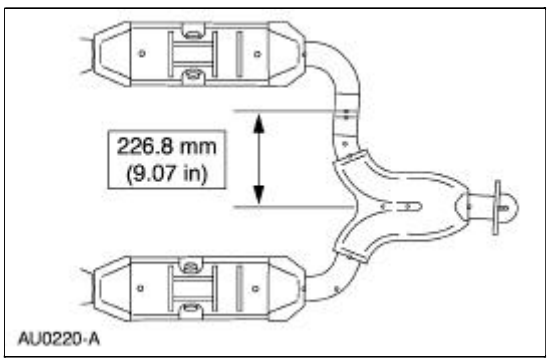
6. Remove the LH exhaust manifold flange nuts.



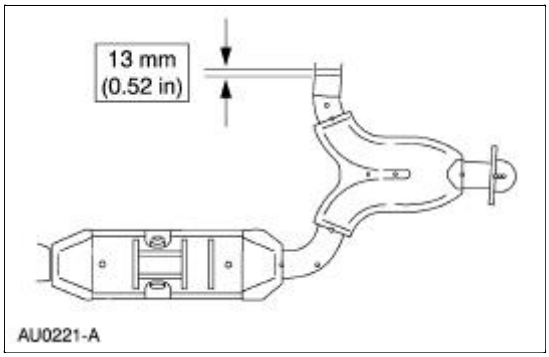
7. Remove the dual converter (5F250) assembly.



8. If necessary, use the two spot welds as a baseline, measure 226.8 mm (9.07 in) and cut the pipe.

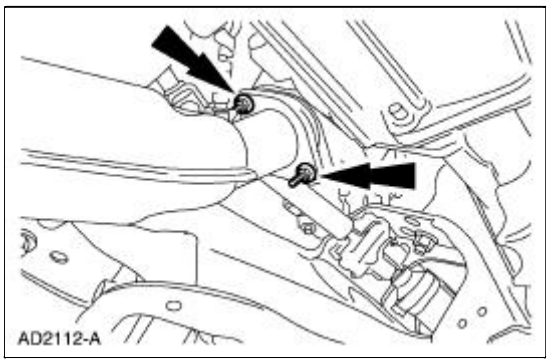


9. Remove 13 mm (0.52 in) from the LH dual converter.

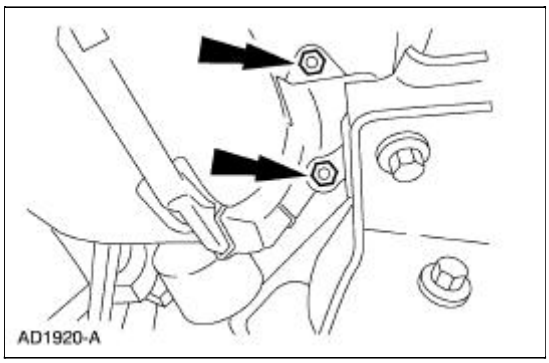


Installation

1. Position the LH dual converter.
    - Snug the LH converter-to-manifold nuts.

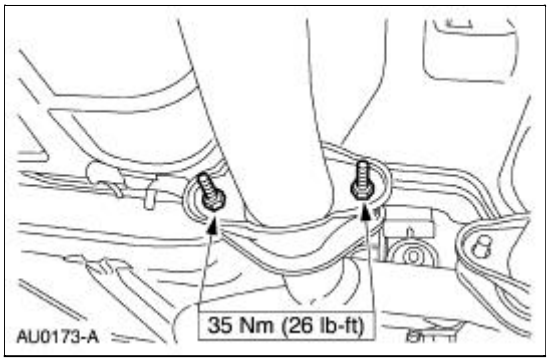


2. Position the RH dual converter pipe.
    - Snug the RH converter-to-manifold nuts.

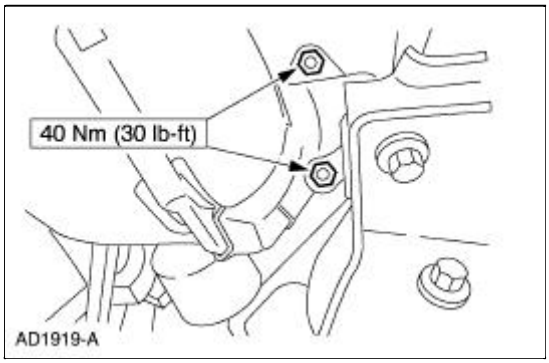


3. If necessary, position the LH and RH dual converter pipes into the sleeve and install the clamps. Tighten the clamps to 55 Nm (41 lb-ft).

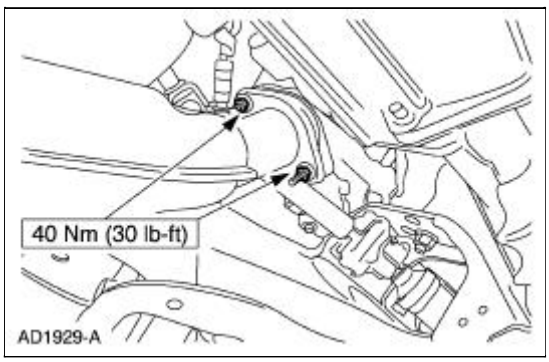
4. Install the dual converter assembly nuts.



5. Tighten the LH converter-to-manifold nuts.



6. Tighten the RH converter-to-manifold nuts.



7. Connect the RH and LH HO2S connectors.
8. Connect the RH and LH catalyst monitor sensor connectors.
9. Lower the vehicle.

Dual Converter H-Pipe —4.6L (2V and 4V)

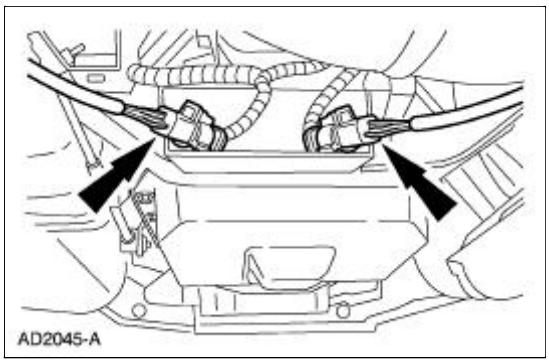
Removal

NOTE: The RH and LH catalytic converters are serviced separately.

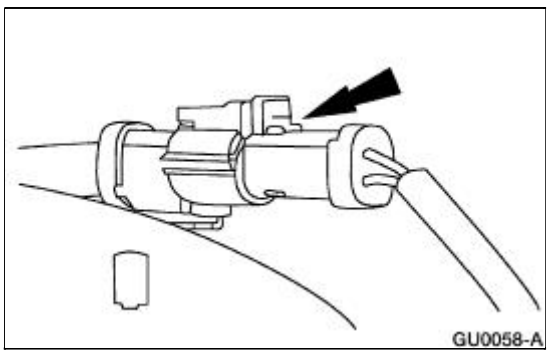
1. Raise and support the vehicle. For additional information, refer to Section 100-02 .

2. **CAUTION: When repairing exhaust system or removing the exhaust components, disconnect all heated oxygen sensors (HO2S) (9F472) at the wiring connectors to prevent damage to the heated oxygen sensors and wiring harness.**

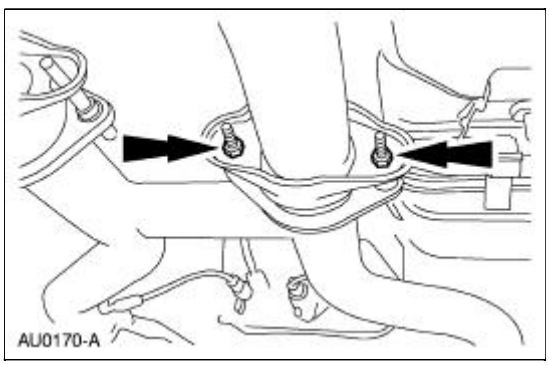
   Disconnect the downstream RH and LH heated oxygen sensor connectors (9F472).



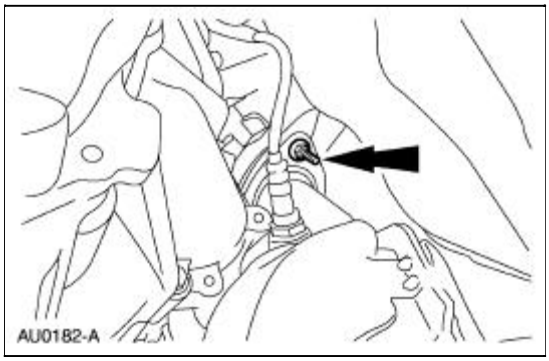
3. Disconnect the two upstream RH and LH catalyst monitor sensor connectors.



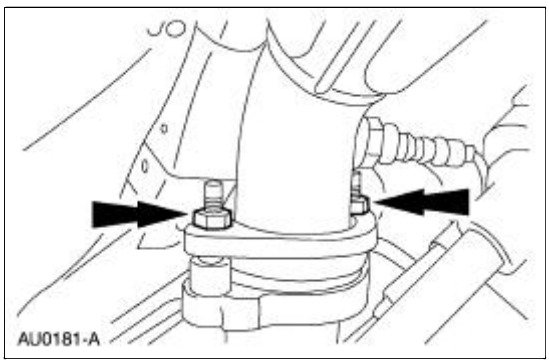
4. Remove the dual converter assembly nuts. (RH shown, LH similar.)



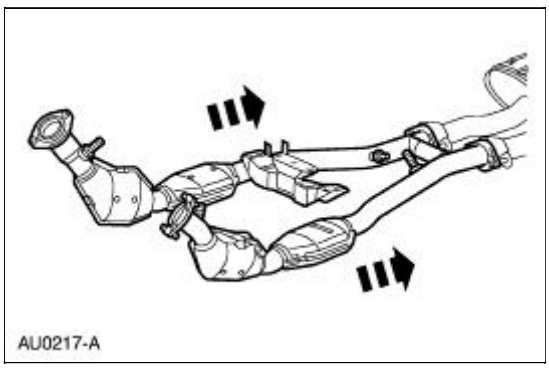
5. Remove the RH exhaust manifold flange nuts.



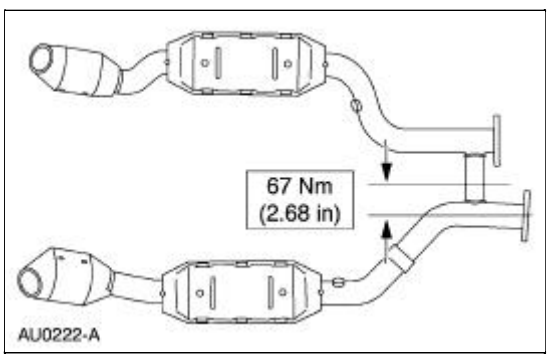
6. Remove the LH exhaust manifold flange nuts.



7. Remove the dual converter H-pipe.



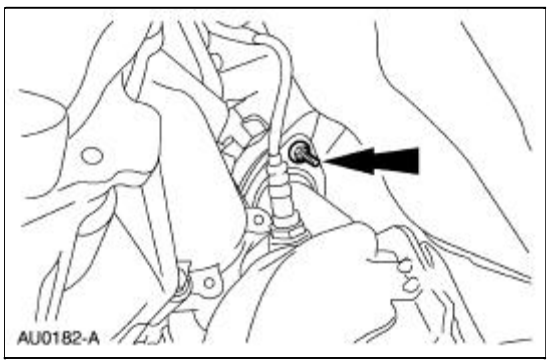
8. If necessary, use the center of the LH flange as a baseline, measure 67 mm (2.68 in) and cut the cross-over pipe.



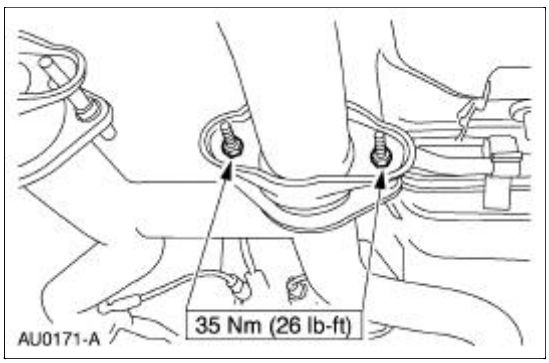
9. If necessary, use the center of the RH flange as a baseline, measure 83.9 mm (3.35 in) and cut the cross-over pipe.

Installation

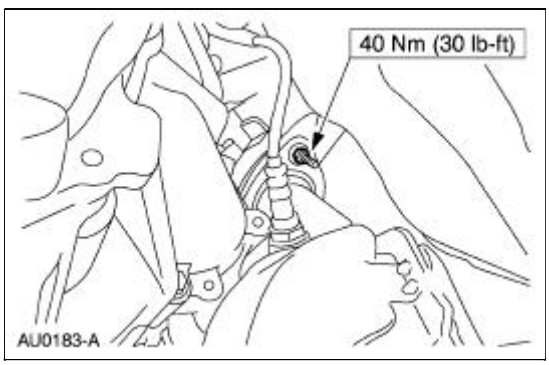
1. Position the LH and RH dual converter pipe.
    - Snug the converter-to-manifold nuts.



2. Position the muffler and install the dual converter assembly nuts. (RH shown, LH similar.)



3. If necessary, position the sleeve and clamps. Tighten the clamps to 55 Nm (41 lb-ft).
4. Tighten the four converter-to-manifold nuts.



5. Connect the two upstream RH and LH heated oxygen sensor connectors.
6. Connect the two downstream RH and LH catalyst monitor sensor connectors.